

# **Solarize Santa Fe!**



**Free Solar Power!!**  
**(Just Add: 1 Very Affordable Solar System)**



**“Solarize Santa Fe!” is a County and City cooperative campaign to educate the public about how incredibly cost-effective solar power is these days.**

Today there is a “perfect storm” of solar electric systems costing 60% less than they did just 5 years ago combined with substantial financial incentives. A solar system will reduce or eliminate your energy utility bills and add significant resale value to your home or business. There are some excellent low interest, longer term financing options available that can make your monthly loan payments about or even lower than the reduction to your monthly electric, natural gas or propane expenses – meaning that a solar system can be close to “cash neutral” or even, in some circumstances, “cash positive” from the moment it is installed. Many solar system owners receive monthly checks from their electric utility! Unlike coal or natural gas-derived electric generation, the “fuel” used by a solar system, the Sun, is free and will remain free (i.e. you’re immune from future utility rate increases.) Guaranteed!!

## **Two Types of Solar Systems**

- A solar photovoltaic (“PV”) electric system uses panels placed on your roof, ground-mounted, or as a “solar carport” to convert the sun’s *light* (not heat) into electricity. Energy you don’t use is credited to you as it passes through your utility meter and out onto the utility grid. In addition to your meter spinning “backwards” (called “net metering”, PNM will currently pay customers an additional 3.5 cents per kilowatt-hour (kWh) of solar electricity produced. But that incentive is decreasing over time.
- A solar thermal system generally uses roof mounted collectors for water heating or space heating (adaptable to radiant floor, baseboard and forced-air systems) → saving natural gas, propane or electricity depending on your current heating source.

**Choosing the size of a solar PV system** depends on what percent of your electricity use you want to generate from solar and/or your ability or desire to pay for the system outright or finance it via a loan. A 3 kilowatt (kW) photovoltaic system can generate about 400 kilowatt-hours of electricity during an average month, enough to completely meet the power requirements of an average-size home. Obtain a 12 month usage history from your utility to determine your average per month electric usage.

For a **solar thermal water heating system**, one 4’X10’ collector can satisfy 75-85% of a typical home’s hot water needs. Solar space heating requirements are specific to each home. If you’re using electricity or propane (both being much more expensive than natural gas) for water or space heating, solar thermal systems can be particularly attractive.

## **Costs**

As with most home improvements, it’s best to obtain bids from three different contractors. Note that both solar PV and solar thermal systems can take advantage of 30% federal and 10% state income tax credits and are also exempt from paying the state’s 8+% gross receipts “sales” tax. Better hurry, though, as the tax credits are in effect only through the end of

**2016! Many PV solar companies also offer 10 year “worry free” warranties covering the entire solar system.**

- **A solar PV system** costs (installed) generally around \$3500 to \$5000 per kilowatt of capacity – most 3 kW systems will cost about \$10,500-15,000. The after-tax-credit net cost of a \$12,000 system is just \$7,200. Ground-mounted and carport systems are generally somewhat more expensive than roof-mounted systems.
- **A typical solar water heating system** for a family of four costs from \$7,000 to \$10,000 including installation. The after tax credit net cost is \$4,200-6,000.

## **Financing Your Solar System**

Some solar PV companies offer a one year interest free loan for the amount of the anticipated income tax credits. Using a 3 kW, \$12,000 PV roof-mounted system example, such a loan would cover the \$4,800 of anticipated tax credits. You never make monthly payments on this loan; you just pay it off once you receive your refunds. Also, Homewise (983-9473, [www.Homewise.org](http://www.Homewise.org)), a non-profit lending organization offers 4% loans to City of Santa Fe residents, for up to 20 years, for homeowners that have a gross annual income of less than \$104,000 per year. Citizens in the unincorporated areas of Santa Fe County can obtain a 6% loan. Interest expense on Homewise loans can be “Schedule A” deducted from your income taxes! If you don’t qualify for a Homewise loan, check with your existing lender, a local credit union, or a solar installation company.

**PV System Financing Examples** (\$12,000 gross cost, 3 kW PV system, approximately \$60/month reduction to a PNM utility bill) Note: Similar savings can be realized for a solar hot water system.

- 1) \$4800 anticipated tax credit amount covered by a 1 year, interest free loan offer from solar company (no payments), \$7,200 financed at 6.5% for 15 years using a loan available from many of the solar companies. Monthly loan payment: \$63. **With a \$60 monthly utility bill reduction, your solar system ends up as a net cost of just \$3/month!**
- 2) \$12,000 loan from Homewise:
  - City Residents: 4%, 20 year loan = \$73/month payments. \$13/month net cost.
  - County Residents: 6%, 20 year loan= \$86/month payments. \$26/month additional cost.

However, you have a \$4800 income tax refund coming to you in the next year!! You can use that \$4800 to take a great vacation, or, if you would like, Homewise will apply your \$4800 tax refund to your loan (at no cost) to reduce your loan payments. The City resident 4% loan payment would drop to \$44/month (for a \$16/month net cash benefit) and the County resident 6% loan drops to \$52/month (\$8/month net benefit).

**Since your monthly loan payments are fixed, your net monthly financial benefit increases as electric, natural gas and/or propane costs increase over time. Also, keep in mind that solar increases the resale value of your home!**

**For Free Advice:** Call Craig O’Hare, Energy Programs Specialist (505) 992-3044 [cohare@santafecountynm.gov](mailto:cohare@santafecountynm.gov) See: [www.santafecountynm.gov](http://www.santafecountynm.gov) and click on “Solar Power” under “Services” for a list of solar companies.

